

CLAIMS

1. (Currently amended) A method of handling a resource request, by a Generic Local Lookup Service (GLLS) at a network edge and a Generic Domain Lookup System (GDLS) at a location remote from the network edge, comprising the steps of:

receiving a resource request at the GLLS-a network server from a client, the resource request identifying the requested resource comprising a first identity of a network entity;

the GLLS forwarding the resource request to the GDLS

the GDLS searching a database for a resource record associated with the requested resource the resource record including a series of executable instructions a best instance of the network entity; the best instance of the network entity being defined by the instance of the network entity that is most compatible with the resource request;

the GDLS analysing a set of resource providers and determining the resource providers compatible with the resource request;

the GDLS transmitting a response containing a list of resource providers to the GLLS, the list including server selection criteria associated with the resource providers;

retrieving an identifier of a series of executable instructions from the resource record; and

the GLLS selecting the best resource provider in the list according to the server selection criteria; and

the GLLS executing the series of executable instructions to facilitate providing the requested resource to the client by the best resource provider instance of the network entity.

2. (Currently amended) A method according to Claim 1, wherein the resource request further comprises information relating to client location in the network and access speed, an operational characteristic, and the best instance of the network entity is defined by the instance of the network entity that is most compatible with the operational characteristic.

3. (Cancelled)

4. (Cancelled)
5. (Currently Amended) A method according to Claim 2 wherein further comprising: adding the information is added relating to the operational characteristic to the resource request after receiving said resource request is received at the GLLSnetwork server from the client.
6. (Cancelled)
7. (Currently amended) A method according to claim 16, wherein the network server-GLLS is a DNS server and the step of receiving a resource request comprises receiving a request concerning access to the resource provider network entity.
8. (currently amended) A method according to Claim 17, further comprising the steps of the:
the GLLS converting the resource request at the DNS server into a form operable by the GDSLglobal network server; and
transmitting the converted resource request to the GDSLglobal network server prior to the steps of searching and retrieving.
9. (Cancelled)
10. (Currently amended) A method according to Claim 19, wherein the requested resource is provided to the client by the best resource provider best instance of the network entity via the GLLSnetwork server.
11. (Cancelled)
12. (Currently amended) A method according to Claim 1, wherein the resource provider network entity is an application.
13. (Currently amended) A method according to Claim 1, wherein the resource provider network entity is a server operating an application.

14. (Cancelled)
15. (Cancelled)
16. (Cancelled)
17. (Cancelled).
18. (Cancelled)
19. (Currently amended) A method according to Claim 15, wherein the resource request is a DNS record and the information operational characteristic in the resource request is contained within an additional DNS text field forming part of the DNS record.
20. (Currently amended) A method according to Claim 15, wherein the response transmitted by the GDLS is a DNS record and the operational characteristics server selection criteria of the compatible resource providers network entities are contained within an additional DNS text field forming part of the DNS record.
21. (Currently amended) A method according to Claim 14, further comprising identifying a lookup means for accessing said resource provider network entity.
22. (Original) A method according to claim 21 wherein the look up means comprises an address.
23. (Original) . A method according to Claim 21 wherein the identifying comprises retrieving a second identity of the network entity.
24. (Original) A method according to claim 23 wherein the first identity comprises a name and the second identity comprises an address.
25. (Currently amended) A DNS record for conveying a response to a resource request message from a GDLS, at a remote location to a network edge, to a GLLS

at a network edge, comprising a user-defined text-field for specifying Content Selection Criteria for finding a best instance of a network entitypreferred resource provider for providing a requested resource; the best instance of the network entitypreferred resource provider being defined by the instance of the network entityresource provider that is most compatible with the requested resource.

26. (Currently amended) A DNS record for conveying a resource request from a GLLS, at a network edge, to a GDLS at a remote location from the network edge, comprising an user-defined text-field for specifying at least one operational characteristicone bit of information about of a client for finding network entitiesresource provider compatible with the requested resource on the basis of operational characteristicsthe information.

27. (Currently amended) A scaleable architecture for handling a resource request from a client, the resource request comprising a first identity of a network entityresource provider, the architecture comprising:

a network server-GLLS at a network edge for providing the requested resource to the client from a preferred resource provider by a best instance of the network entity in response to receiving the resource request from the client, said preferred resource providerbest instance of the network entity being defined by as the instance of the network entityresource provider that is most compatible with the resource request with respect to Content Selection Criteria contained in the resource request; and

a GDLS at a remote location from the network edge for returning a set of resource providers in response to receiving a converted resource request from the GLLS.

28. (Currently amended) An architecture according to claim 22, wherein the resource request further comprises information relating toon the clientan operational characteristic, and the preferred resource providerbest instance of the network entity is defined as the resource provider by the instance of the network entity that is most compatible with the client informationoperational characteristic; the architecture further comprising:

a global network server for returning a set of network entities in response to receiving a converted resource request form the network server;

the ~~network server~~ GLLS further comprising a comparator for comparing the returned set of resource providers ~~network entities~~ with information on the client relating to the operational characteristic to produce an ordered list of resource providers ~~network entities~~ with the preferred resource provider best instance of the ~~network entity~~ first.

29. (Currently amended) An architecture according to claim 28, further comprising a content distribution point manager (CDPM) associated with the ~~GDLS~~~~global network server~~, the CDPM and holding information on resource providers~~network entities~~, said content manager-CDPM configured to for providing information on all known ~~network entities~~resource providers able to supply the requested resource on receiving a query from the GLLS corresponding to the conventional resource request received by from the GLLS~~global network manager~~.

30. (Currently amended) A computer readable storage medium storing instructions that, when executed on entities within a network~~by a computer~~, cause the entities~~computer~~ to perform a method for handling a resource request, the method comprising the steps of:

receiving a resource request at a GLLS at a network edge from a client, the resource request identifying the requested resource;

the GLLS forwarding the resource request to a GDLS at a location remote from the network edge;

the GDLS searching a database for a resource record associated with the requested resource the resource record including a series of executable instructions;

the GDLS analysing a set of resource providers and determining the resource providers compatible with the resource request;

the GDLS transmitting a response containing a list of resource providers to the GLLS, the list including server selection criteria associated with the resource providers;

the GLLS selecting the best resource provider in the list according to the server selection criteria; and

the GLLS executing the executable instructions to facilitate providing the requested resource to the client by the best resource provider.

~~receiving a resource request at a network server from a client, said resource request comprising a first identity of a network entity;~~

~~searching a database for a resource record associated with a best instance of said network entity; said best instance of the network entity being defined by the instance of the network entity that is most compatible with the resource request;~~

~~retrieving an identifier of a series of executable instructions from said resource record; and~~

~~executing said series of instructions to facilitate providing the requested resource to said client by said best instance of the network entity.~~

31. (Currently amended) A method according to Claim 2, wherein the server selection criteria includes information on operational characteristic is one of the group comprising; a response time of said resource provider network entity, a load on said resource provider network entity, a distance to the resource provider from the client network entity, and a throughput of the resource provider network entity.

32. (Currently amended) A method according to Claim 1, wherein the requested resource is available on the resource provider network entity but is not available on the GLLS network server.

33. (Original) A communications network comprising the scaleable architecture as claimed in claim 27.

34. (New) A method according to Claim 1 wherein the list of resource providers transmitted by the GDLS is in order of their compatibility with the resource request, the most compatible resource provider placed first.

35. (New) A method according to Claim 1 wherein the GLLS includes a Content Distribution Point Manager (CDPM), the CDPM adapted to provide information about local resource providers within an ISP domain.

36. (New) A method according to Claim 1 wherein the GDLS includes a Content Distribution Point Manager (CDPM), the CDPM adapted to provide information about resource providers throughout the network.